

Remarks/Arguments

Claims 1-7, 9, 15-17, 19-20 and 24 are currently pending in the application. By this amendment, claims 1-5, 9, 15-16 and 24 will have been amended and claim 35 will have been added for the Examiner's consideration. Claims 8, 10-14, 18, 21-23 and 25-33, directed to a non-elected invention, have been withdrawn by the Examiner. Moreover, Applicant notes that while the scope of claim 1 has been changed by the amendment, the claim is still within the group of invention previously elected. Further, claims 2-5, 9, 15-16 and 24 will have been amended to correct formal matters, e.g., antecedent basis issues, and claim 2 will have been further amended to clarify claim language relating to mixing. Further still, claim 35 will have been added, Applicant submits no new matter will have been introduced.

Accordingly, by the present amendments and remarks, Applicant submits that the rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the instant application.

Advisory Action

In the Advisory Action, dated March 25, 2008, the Examiner indicated Applicant's first Amendment, dated March 7, 2008, would not be entered. In view of the Interview of April 18, 2008, and in accordance with the Examiner request, Applicant is submitting a second Amendment.

Amendment Proper for Entry

Applicant submits that the instant amendment does not raise any new issues for consideration by the Examiner nor any questions of new matter. Further, Applicant submits that, as the instant amendment places the claims into condition for allowance,

entry and consideration of this amendment is proper and, therefore, requested.

Substance of the Interview of April 18, 2008

Applicant further wishes to thank Examiner GAKH for her courtesy and cooperation during the interview conducted on April 18, 2008 with Applicant Dr. Bhavani RAGHURAMAN and Applicants' representative Jim McAleenan, Esq.

During the above-noted interview, Applicants' representative discussed the features of the present invention and the advantages thereof with respect to the prior art. Moreover, Applicants' representative discussed the references cited by the Examiner GAKH and pointed out the shortcomings thereof with respect to the features of the present invention.

In particular, Applicant's representative discussed the baseline analysis providing whether a decision to use the reagent and/or an amount of the reagent is to be mixed with the formation fluid. Further, Examiner GAKH expressed concerns relating to determining fluid chemistry language in the claim.

Also discussed, concerning the GREY and CLARK references (e.g., GREY *et al.* US 5,246,862 and CLARK *et al.* US 6,564,866) cited and applied by Examiner GAKH, Applicants' representative noted that these references did not teach each and every feature of independent claim 1. The substance of these differences is more clearly set forth below.

GREY discloses a reagent 18 being applied to fabric 16 of the tape 14 to change the optical properties in response to the presence of specified chemical compounds in the soil 12. CLARK discloses the method of determining whether or not a TCP gun has fired, by introducing fluorescent tracers into injection wells and detecting the presence of the fluorescent tracers at production wells.

More specifically, Applicants' representative asserted that neither of the cited references (GREY and CLARK) or any other prior art of record discloses *drawing formation fluid into the flow-line; and while the formation tester remains downhole mixing the analytical reagent with the formation fluid*, as at least recited in independent claim 1.

Applicants' representative asserted that GREY specifically states that the reagent is applied to the paper 16 of indicator tape 14 so as to change the optical properties in response to the presence of specified chemical compounds. Further, it would be impossible to modify GREY, e.g., by mixing the reagent with the formation fluid, as asserted by the Examiner, with the teachings of CLARK since nothing in GREY teaches or suggests mixing the reagent with the formation fluid. Applicant notes that the GREY device simply would not work if combined with the CLARK device.

Examiner GAKH indicated that she would further consider these arguments when filed with the response.

Amendment Fully Supported by the Original Disclosure

The above amendments do not add new matter to the application and are fully supported by the specification. For example, support for amending independent claim 1 is provided at paragraphs [0007] to [0011], [0034] to [0035] of the specification. In particular, support for amending claim 1 to include - - *drawing formation fluid into the flow-line_such that the formation fluid is in communication with the fluids analyzer whereby the fluids analyzer establishes a baseline analysis* - -, is provided in paragraph [0008] and Figs. 2, 6, 8, 10, 12, 14, 16 and 18. Further, support for amending claim 1 to include - - *while the formation tester remains downhole, mixing a predetermined amount of the analytical reagent with the*

formation fluid in view of the analyzed formation fluid- -, is provided in paragraph [0008] and Figs. 2, 6, 8, 10, 12, 14, 16 and 18. Support for adding new claim 35 is provided in Figs. 2, 6, 8, 10, 12, 14, 16 and 18.

Further, claims 1-5, 9, 15-16 and 24 were amended for antecedent issues along with being amended to overcome the Examiner's 35 USC § 112 rejections.

Applicant respectfully requests reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

35 USC § 112, First Paragraph rejections

Claims 1, 7 and 24 were rejected under 35 U.S.C. §112, First Paragraph, the Office asserts that the specification does not enable practice of the invention commensurate with the scope of the claims because claims 1 and 24 do not recite mixing the formation fluid with the reagent in the flow line and claim 7 for lacking enablement based on failure to recite a pump rate. Applicant respectfully transgresses this rejection.

As a preliminary matter, the entire disclosure, including the drawings, provide sufficient disclosure of what is claimed.

Moreover, Applicant submits that the Examiner's reading of the instant disclosure is unduly narrow, and that the original application contains the subject matter sufficient to convey to one ordinarily skilled in the art that the inventor had possession of the invention at the time of the application was filed.

Applicant respectfully notes, and as previously stated, that as long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. 112 is satisfied. *In re Fisher*, 427 F.2d

833, 839, 166 USPQ 18, 24 (CCPA 1970). Failure to disclose other methods by which the claimed invention may be made does not render a claim invalid under 35 U.S.C. 112. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533, 3 USPQ2d 1737, 1743 (Fed. Cir.), *cert. denied*, 484 U.S. 954 (1987).

Claim 1 and 24 § 112, First Paragraph Rejections

Applicant submits the original specification discloses that one of the main advantages of the recited invention is that fluid analysis is done before changes in environmental conditions alter results, e.g., within the borehole. Fluid samples can undergo irreversible phase transitions between the point of collection and the point of analysis because of changes in environmental conditions such as pressure and temperature. In order to provide improved analysis, mixing of the formation fluid with reagent and analysis of the mixture are done within the borehole. Whether the mixing takes place in the flow line, the fluids analyzer, or some other structure is not critical to the invention; the point is that mixing and analysis is done within the borehole.

While Applicant does not agree with the Examiner applied 35 U.S.C. §112, First Paragraph rejection, in order to expedite prosecution Applicant has amended independent claim 1 to further recite, in part, - *-mixing the analytical reagent with the formation fluid-* -, so as to address the Examiner's rejection.

Applicant cannot understand the Examiner's 35 U.S.C. §112, First Paragraph rejection to claim 24 other than possibly due to being dependent from claim 1. As best can be understood from the instant Office Action, Applicant believes the rejection of claim 24 has been rendered moot, in view of the current amendment to claim 1.

In view of the above-noted amendment to independent claim 1, Applicant believes the 35 U.S.C. §112, First Paragraph rejection is rendered moot.

Accordingly, Applicant submits that, as the pending claims are fully supported by the original disclosure, withdrawal of the pending rejections is respectfully requested.

Claim 7, § 112, First Paragraph Rejection

As a preliminary matter, the entire disclosure, including the drawings, provide sufficient disclosure of what is claimed, as currently amended, and as previously stated. The terms relating to methods “based on a known pump rate, adjusting the injection period of time with an amount of volume of reagent from the reagent container into the formation fluid” are presented in the specification and not in the claims, and the specification provides a complete understanding for one ordinary skilled in the art to make and or use the invention. Specifically, the specification clearly describes adjusting the pump rate with changing an injection time with changing volume of reagent from the reagent container so as to make a mixture of formation fluid and analytical reagent to eventually get validated optical density values that produces an analysis (chemical composition) of the formation fluid (see Fig. 3, character reference numbers 315-320), as disclosed in paragraphs [0052] to [0065] and [0068], [0080], [0083] and Fig.s 3-7 and 20A of the Specification.

Applicant respectfully notes that such language contains a full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

As is indicated in MPEP 2164.01:

“[t]he test of enablement is whether one skilled in the art could make and use the claimed invention from the

disclosure coupled with information known in the art without undue experimentation. United States v. Telectronics, Inc., 857 F.2d 778, 8 USPQ2d 1217 (Fed. Cir. 1988); In re Stephens, 188 USPQ 659 (CCPA 1976). The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. In re Angstadt, 190 USPQ 214 (CCPA 1976). An extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance. In re Colianni, 195 USPQ 150 (CCPA 1977) (Miller, J., concurring). The experimentation required, in addition to not being undue, must not require ingenuity beyond that expected of one of ordinary skill in the art. In re Angstadt, supra. For example, in one instance a "few hours" of experimentation to determine process parameters was not considered to be undue in view of the nature of the invention (preparation of oxygenated hydrocarbons). In re Borkowski, 164 USPQ 642 (CCPA 1970). In Tabuchi v. Nubel, 194 USPQ 521 (CCPA 1977) a screening procedure which took 15 calendar days was not considered undue experimentation because the test was both simple and straightforward and because of its demonstrated success in producing the desired result.

Applicant has disclosed the functions, e.g., to adjust the pump rate with injection time and volume of the reagent, so as to provide one skilled in the art to make and or use the claimed invention without undue experimentation. Such information coupled with the skill and knowledge that one of ordinary skill in the art would have regarding the control/regulating of oil temperature and the changing in volume flow of the oil is more than sufficient to enable the claimed invention and certainly would not require undue experimentation.

Applicant reminds the Examiner of the guidance provided in MPEP 2164.04, which states that:

“...a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirement of the first paragraph of 35 USC112 unless there is reason to doubt the

objective truth of the statements contained therein which must be relied on for enabling support.”

Furthermore, Applicant submits, that the Examiner’s rejection is moot in view of Applicant’s amendment of claim 2, such that claims 3-7, which depend from claim 2 will have been further clarified, Applicant believes as in accordance with the Examiner’s rejections. In particular, claim 2 has been further amended to recite, *inter alia*, whereby the fluid chemistry of formation fluid is determined in the earth formation, such that the pump rate, injection time and volume is further defined in the claims. Such claim language is clearly and fully enabled consistent with current US patent law.

Respectfully, and as noted previously, Applicant requests the Examiner to review the MPEP and discuss the interpretation of 35 U.S.C. §112, first paragraph with her SPE. Nearly every patent application recites claims that omit some of the structure and steps described in the specification. Applicant naturally seeks the broadest protection permissible for their inventions, and recitation in the claims of every trivial detail in the detailed description would, in most cases, result in claims so narrow that avoidance of infringement would become a simple exercise.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 112, first paragraph.

35 U.S.C. §112 Rejection, Second Paragraph

The Examiner has rejected claims 4, 6, 15, 17, 19 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to distinctly claim the subject matter which Applicant regards as the invention. While Applicant disagrees with each of

the Examiner's assertions, by the present amendment, Applicant has amended claims 4 and 15, in accordance with the Examiner's rejection to even more clearly recite the features of the invention and in order to render moot the Examiner's rejections claims 4, 6, 15, 17, 19 under 35 U.S.C. 112, second paragraph.

(Claim 4) Applicant has amended claim 4 in accordance with the Examiner's rejection (support for amending claim 4 is provided in paragraph [0050] of Applicant's Specification) to even more clearly recite the features of the invention and in order to render moot the Examiner's rejection under 35 U.S.C. 112, second paragraph.

(Claims 6 and 17) Applicant submits, that the Examiner's rejection is believed moot in view of Applicant's amendment of claim 2, such that claims 6 and 17, which depend from claim 2 will have been further clarified, Applicant further believes the above-mentioned amendments is in accordance with overcoming the Examiner's rejections.

(Claim 15) Applicant has amended claim 15 in accordance with the Examiner's comments in the present Office Action (support for amending claim 15 is provided in paragraph [0079] to [0080] and Fig.s 14-15 of Applicant's Specification) to even more clearly recite the features of the invention and in order to render moot the Examiner's rejection under 35 U.S.C. 112, second paragraph. For example, Applicant amended claim 15 to recited, in part, *an extractor pump extracts formation fluid from a stopped flowline so as to induce analytical reagent injection into the flowline.*

(Claim 19) Applicant believes the Examiner's 35 U.S.C. 112, second paragraph rejection to claim 19 is believed moot, in view of the above-noted amendment to claim 15.

Respectfully, applicant notes, and as previously stated:

"[I]t is not essential to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result." *Ex parte Nolden*, 149 USPQ 378, 380 (Bd. Pat. App. 1965). A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes. *Ex parte Huber*, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965).

With respect, in attempting to require that the claims recite various intermediate steps to create interdependency between the currently recited steps, respectfully, the Examiner has misconstrued the requirements of 35 U.S.C. 112 second paragraph.

Accordingly, Applicant requests reconsideration and timely withdrawal of the instant rejections under 35 U.S.C. 112, second paragraph.

35 U.S.C. §103 Rejection

GREY in view of CLARK

Claims 1-2, 4 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 5,246,862 issued to Grey *et al.* (GREY) in view of U.S. Patent Number 6,564,866 issued to Clark *et al.* ("CLARK").

The Examiner asserts GREY teaches using a reagent-impregnated tape for detecting contaminations in soil (Abstract) and that CLARK discloses a fluorescent dye tracer being mixed with formation fluid in order to detect the tracer in the formation fluid downhole (Col. 3, lines 14-18 and 29-32).

The Examiner's First assertion, the Examiner makes the assertion that it would have been obvious for one skilled in the art to modify GREY's method for determining

components of formation fluids, rather than soil, by mixing the reagent of GREY with the formation fluids and then analyzing the mixture in the flow cell of spectrometer/photometer in the way, as disclosed by CLARK, for mixing the formation fluid with the tracer, because the Examiner suggests to allow for expanding GREY's method for analysis of formation fluids. See page 4 of the Office Action.

The Examiner's Second assertion, the Examiner makes the assertion that it would have been obvious for one skilled in the art to store reagents in a reagent container rather than impregnated in the tape, in GREY, because storing the reagent in a reagent container allow for better regulation of the amount of reagents mixed with the formation fluid and because utilizing reagents in both dry and liquid forms is well known in the art. See pages 4-5 of the Office Action. Applicants traverse the Examiner's assertions, in view of the current amendments.

Applicants' claim 1 recites, as currently amended, *inter alia*,

A method for determining fluid chemistry of formation fluid in earth formation surrounding a borehole, the method comprising:

in a formation tester having a reagent container coupled to a fluids analyzer via a flow line, storing analytical reagent in the reagent container;

transporting the formation tester downhole;

drawing formation fluid into the flow-line such that the formation fluid is in communication with the fluids analyzer whereby the fluids analyzer provides downhole spectral analysis;

while the formation tester remains downhole, mixing the analytical reagent with the formation fluid;

moving a reacted mixture of formation fluid and analytical reagent fluid through a spectral analyzer cell in the fluids analyzer; and

performing spectral analysis on the reacted mixture to determine fluid chemistry while downhole.

Applicant submits that no proper combination of GREY and CLARK render obvious the above-noted features of claims 1 and 11-15, as currently amended.

As acknowledged by the Examiner, GREY does not show all of the features of

the claimed invention. In particular, as GREY discloses a system for sensing contaminants 11 in the soil 12 by means of an indicator tape 14, where a reagent 18 is applied to the fabric 16 of the tape 14 to change the optical properties in response to the presence of specified chemical compounds in the soil 12. However, this document fails to disclose or suggest *drawing formation fluid into the flow-line such that the formation fluid is in communication with the fluids analyzer whereby the fluids analyzer provides downhole spectral analysis; and while the formation tester remains downhole mixing the analytical reagent with the formation fluid*, as at least recited in independent claim 1, as currently amended. In fact, (Examiner's First assertion) nothing in GREY discloses "mixing the reagent of GREY with the formation fluids", nor expanding the analysis of formation fluids in the manner asserted by the Examiner, as was asserted by the Examiner's, in the FIRST assertion, noted above.

Moreover, (Examiner's First assertion) GREY specifically states that the reagent is applied to the paper 16 of indicator tape 14 so as to change the optical properties in response to the presence of specified chemical compounds. Further, it would be impossible to modify GREY, e.g., by mixing the reagent with the formation fluid, as asserted by the Examiner, with the teachings of CLARK since nothing in GREY teaches or suggests mixing the reagent with the formation fluid. Applicant notes that the GREY device simply would not work if combined with the CLARK device.

Examiner's Second assertion, as discussed above, GREY discloses a reagent 18 being applied to fabric 16 of the tape 14 to change the optical properties in response to the presence of specified chemical compounds in the soil 12. Contrary to the Examiner's Second assertion, page 4-5 of the Office Action:

"it would have been obvious for one skilled in the art to store reagents in a reagent container rather than impregnated in the tape, in GREY, because storing the reagent in a reagent container allow for better regulation of the amount of reagents mixed with the formation fluid"

GREY clearly discloses using the reagent 18 being applied to fabric 16 of the tape 14 to change the optical properties and NOT to store reagents in a reagent container to allow for better regulation of the amount of reagents to mix with the formation fluid, as asserted by the Examiner. If nothing else, the Examiner is using impermissible hindsight, as noted above, nothing in GREY teaches or suggests *drawing formation fluid into the flow-line such that the formation fluid is in communication with the fluids analyzer whereby the fluids analyzer provides downhole spectral analysis; and while the formation tester remains downhole mixing the analytical reagent with the formation fluid*, as at least recited in independent claim 1, as currently amended.

CLARK discloses the method of determining whether or not a TCP gun has fired, by introducing fluorescent tracers into injection wells and detecting the presence of the fluorescent tracers at production wells (see Abstract of CLARK), this document fails to disclose or suggest *drawing formation fluid into the flow-line such that the formation fluid is in communication with the fluids analyzer whereby the fluids analyzer provides downhole spectral analysis; and while the formation tester remains downhole mixing the analytical reagent with the formation fluid*, as at least recited in independent claim 1, as currently amended.

As neither applied document teaches or suggests the above-noted features of at least independent claim 1, Applicant submits that no proper combination of these documents can render unpatentable the combination of features recited in the pending claims, as currently amended.

Further, Applicant respectfully disagrees with the Examiner's assertions that it would have been obvious to modify the teachings of GREY with those of CLARK since the device of GREY operates in a different way than the device of CLARK, as noted-

above.

A § 103 rejection requires the Examiner to first establish a prima facie case of obviousness: “The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the Examiner does not produce a prima facie case, the Applicants are under no obligation to submit evidence of nonobviousness.” MPEP 2142. The Court of Appeals for the Federal Circuit has set forth three elements which must be shown for prima facie obviousness:

“First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teachings or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).”

The Examiner correctly states that the fluorescent tracer of CLARK is not an analytical reagent (see page 7 of the Office Action). The Examiner further recites that because CLARK teaches the steps of mixing the tracer with the formation fluid and detecting the tracer in the formation fluid downhole, that CLARK “provides all necessary steps lacking from GREY for mixing the analytical reagent with the formation fluid with the following detection of the reacted mixture by a downhole detector.” See page 7, middle of first paragraph. How can this be, contrary to the Examiner’s assertions, the GREY device uses a reagent on a fabric of a tape where the contaminants change the properties of the fabric to provide detection and the CLARK device uses a florescent tracer that mixes with the formation fluid to determine if a gun was or was not fired. Further, both CLARK and GREY utilize a reflection measurement

rather than an absorption measurement, and do not provide for multiple measurements without withdrawing the tool from the borehole. Applicant submits that the GREY device clearly operates differently than the CLARK device, such that the CLARK device cannot be combined with the GREY device to create a working device.

As the devices in the cited documents operate in different manners, Applicants submit that it would not have been obvious to replace the reagent on a fabric of a tape of GREY with using a florescent tracer that mixes with the formation fluid of CLARK, nor is there any suggestion in the art of record that such a modification, even if obvious (which Applicants submit it is not) would allow GREY to operate in its intended manner.

Thus, Applicant submits that the art record fails to disclose the requisite motivation or rationale for combining GREY and CLARK in the manner asserted by the Examiner.

For these reasons, Applicant respectfully submits that independent claim 1 is allowable over any proper combination of GREY and CLARK. Claims 2-7, 9, 15-17, 19-20 and 24 are also allowable over GREY and CLARK because of its dependency from allowable base claim 1. Because claims 8, 10-14, 18, 21-23 were initially withdrawn by the Examiner concerning a restriction requirement, Applicant submits that these claims are also allowable over GREY and CLARK because of their dependency from allowable base claim 2. Withdrawal of the rejection of claims 2-7, 9, 15-17, 19-20 and 24 are respectfully requested.

GREY in view of CLARK and in further view of TAWARAYAMA

Claims 3 and 5-7 are rejected under 35 U.S.C. 103 as being unpatentable over GREY in view of CLARK in view of TAWARAYAMA. Applicants traverse the Examiner's assertions.

TAWARAYAMA is cited as teaching detection of trace elements in a water flow using a syringe and spectrophotometer. However, there is no suggestion of either the problem or the claimed solution of the present invention, i.e., that a reagent fluid is mixed with a formation fluid, and analysis of the reacted mixture occur downhole before changing environmental conditions would alter the results. Claims 3 and 5-7 therefore distinguish the cited combination for the same reasons already stated above with regard to claim 1.

Therefore, Applicant respectfully requests the rejection to claims 3 and 5-7 be withdrawn. Further, Applicant submits that these claims depend from claim 1, and is allowable over GREY in view of CLARK and in further view of TAWARAYAMA for at least the reasons set forth above with respect to claim 1, as well as for their added features. Accordingly, Applicants request that the rejection of claims 3 and 5-7 be withdrawn.

GREY in view of CLARK and in further view of TAWARAYAMA and still in further view of TUBEL

Claims 9, 15-17 and 20 are rejected under 35 U.S.C. 103 as being unpatentable over GREY in view of CLARK and TAWARAYAMA and still in further view of TUBEL. Applicants traverse the Examiner's assertions.

The Examiner cites TUBEL as teaching use of chemical sensors downhole at col. 18, lines 19-20, but there is no suggestion in either the reference or the Office Action that the sensors would be spectral analyzers operative in response to reagents. Claims 9, 15-17 and 20 therefore distinguish the cited combination for the same reasons already stated above with regard to claim 1.

Therefore, Applicant respectfully requests the rejection to claims 9, 15-17 and 20 be withdrawn. Further, Applicant submits that these claims depend from claim 1, and is allowable over GREY in view of CLARK and in further view of TAWARAYAMA and still in further view of TUBEL for at least the reasons set forth above with respect to claim 1, as well as for their added features. Accordingly, Applicants request that the rejection of claims 9, 15-17 and 20 be withdrawn.

Rejoinder of Withdrawn Claims under 37 CFR 1.144

In accordance with the Petition from Requirements for Restriction under 37 CFR 1.144 filed previously, Applicants respectfully submit that should independent claim 1 be found patentable in light of the current arguments, dependent claims 8, 10-14, 18 and 21-23 must be rejoined as claim 1 serves as an appropriate linking claim under MPEP 809 et seq.

Amendment Proper for Entry and the Application is Allowable

Applicant submits that the instant amendment does not raise any new issues for consideration by the Examiner or any questions of new matter. Further, Applicant submits that, as the instant amendment places the claims into condition for allowance, entry and consideration of this amendment is proper and, therefore, requested.

Thus, Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully requests the Examiner to indicate allowance of each and every pending claim of the present invention.

CONCLUSION

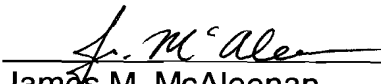
In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious Applicant's invention, as recited in each of claims 1-7, 9, 15-17, 19-20 and 24. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto. Further still, Applicant respectfully submits that if independent claim 1 is found patentable in light of the current arguments, dependent claims 8, 10-14, 18 and 21-23 must be rejoined, as claim 1 serves as an appropriate linking claim under MPEP 809 et seq.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Should the Examiner have any questions or comments, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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